

REMARKS

This paper responds to the Office Action of November 21, 2008, in which claims 1-34 were rejected under 35 U.S.C. § 103.

By this paper, claims 1-7, 9 -12, 14 and 28 have been amended, claims 35 and 36 are new, and claims 19-27 and 29-34 have been canceled. No new matter has been added by the claim modifications.

Reconsideration and allowance are requested.

Claim Rejections Under 35 U.S.C. § 112

Claim 1 was rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Claims 1-6, 10, and 30 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-6 have been amended, and the “replaceable” recitation has been removed. In claims 2-6, as amended, the “connecting elements” relate to the percutaneously implantable port and “connecting jowls” relate to the connecting head. Reconsideration and withdrawal of the § 112 rejections are requested.

Overview of the claimed invention

The claims, as amended, recite a connecting head with “connecting jowls,” and according to Applicants:

The connecting device comprises a base body from which the connecting jowl can be elastically spread or splayed in order to establish the fastening engagement and release it again. *U.S. Publication 2004/0249361*, ¶ [0014] (the publication of the instant application).

In addition, the claims, as amended, recite “grip elements” coupled to the “connecting jowls,” which, according to Applicants,

In one preferred development or embodiment of the present invention, two grip elements that can be pressed towards each other about the splaying axis in order to release the connection are bent

towards each other at their ends. In a preferred embodiment, they form a closed arc, such that an eye-shaped grip part arises. Forming the grip part in the shape of an eye, with a round outer contour--elliptically for example--has the advantage that the connecting device can not get caught in items of clothing, such that it is possible to even more reliably rule out the possibility of undesirable forces being introduced into the port casing via the connecting device. *Id.* at ¶ [0016].

It is within this context that the distinguishing features are explained below. The associated advantages may assist the Examiner in finding that these features are not obvious.

Claim Rejections Under 35 USC 103

Claims 1, 10-13, and 15-16 were rejected under 35 USC 103(a) over US Patent 4,488,877 (Klein) in view of US Patent 6,007,516 (Burbank). Claims 2-9 and 14 were rejected under 35 USC 103(a) over Klein in view of Burbank and further in view of US Patent 5,810,792 (Fangrow). Claims 19-27 were rejected under 35 USC 103(a) over Klein in view of Fangrow. Claims 17-18 were rejected under 35 USC 103(a) over Klein in view of Burbank and further in view of US Patent 6,270,475 (Bestetti). Claim 28 was rejected under 35 USC 103(a) Klein in view of US Patent 5,098,397 (Svensson). Claims 29-31 were rejected under 35 USC 103(a) as unpatentable over Klein in view of Svensson and further in view of WO 99/34754 (Hakansson). Claims 32-34 were rejected under 35 USC 103(a) as unpatentable over Klein in view of Svensson and further in view of Fangrow. The claim rejections are traversed for at least the following reasons.

Claims 19-27 and 29-34 have been canceled, and the rejections thereof have been made moot.

With respect to the pending claims (now independent claim 1 and claims depending therefrom, including claims 2-7, 9-18 and 28), the amendments to the claims recite a “connecting head” with “a connecting cannula and two connecting jowls arranged transverse to the connecting cannula, the connecting jowls forming a latching projection formed of a curved arc of greater than 180°, the latching projection pointing radially inward to an underside of the

connecting head.” The “connecting jowls” are coupled to “grip elements,” which are “coupled to the connecting head such that a movement of the grip elements towards each other results in a radial splaying movement of the curved arc of the latching projection about an axis arranged perpendicular to the underside of the connecting head for facilitating connection of the connecting head.” When the “connecting head” “connecting jowls,” via the “grip elements,” are splayed open, the connecting head “latching projection” “curved arc of greater than 180°” may be received by “connecting elements” arranged on the percutaneously implantable port, thus forming a “fastening engagement.”

Accordingly, in view of the amendments to claim 1, claim 1 now recites several limitations that were in canceled claims 19-27, i.e., “grip elements” and “connecting jowls” forming the claimed “fastening engagement.” The Examiner rejected claims 19-27 as obvious over Klein in view of Fangrow, stating:

Klein discloses a connecting head 42 of fluid guiding system; a base body 36 and a connecting cannula of said connecting head (Fig. 1); wherein said connecting cannula fluidically connects the implantable port to the external fluid guiding system. Klein does not disclose a pair of pincer, a connecting jowl.

Fangrow discloses the connecting elements in Figs. 1-10 same as characters of claimed invention. For example: a latching protrusion 82, latching projection 68a, 68b (Figs. 7-8); connecting head 26 comprises a base body 34 or 36 (Fig. 6); or a pair of pincer 84a-b; a jowl 82.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the device of Klein with a connecting element, as taught by Fangrow, in order to provide a convenient way by releasably locking a fluid line to a receiving port. *Office Action*, pages 4-5.

Although Applicants agree with the Examiner that Klein does not disclose the “connecting jowls” and “grip elements,” as claimed, Applicant’s disagree with the Examiner’s position that the claims are obvious over Klein in view of Fangrow. In particular, claim 1 has been amended such that the “fastening engagement” is formed between the “connecting elements and said connecting jowls upon the radial splaying movement of the connecting jowls,” where “connecting jowls [are] arranged transverse to the connecting cannula,” and “a movement of the

grip elements towards each other results in a radial splaying movement of the curved arc of the latching projection about an axis arranged perpendicular to the underside of the connecting head.”

Fangrow does not disclose or suggest the claimed “fastening engagement” because in Fangrow, the medical connector includes a cannula 16 and grip elements 58a and 58b are arranged parallel to each other, and when grip elements 58a and 58b are operated, lips 64a and 64b open along an axis arranged parallel to the cannula. That is, with reference to the cross-sectional view of Fig. 6 in Fangrow, pressing handles 62a and 62b of connector would cause lips 64a and 64b to open in a z-axis direction (the z-axis pointing into the page). In contrast, in the cross-section of the connecting head Fig. 5 of U.S. Publication 2004/0249361, grip elements splay open the curved arc of connecting jowls in a y-axis direction.

Furthermore, the orientational difference of the opening axis of the axis connector in Fangrow and the “connecting jowls” of the “connecting head” results in additional differences between Fangrow and the claimed “fastening engagement.” Claim 1 recites, “the connecting jowls form[] a latching projection formed of a curved arc of greater than 180°.” Fangrow, in contrast, discloses two sets of lips 64a and 64b. Each of lips 64a and 64b form an arc along the bottom periphery of grip arms 60a and 60b, respectively, but each arc is not greater than 180°.

Moreover, due to arms 60a and 60b being formed by cuts in the body portion 36, the arcs formed by lips 64a and 64b are separate from the other, and thus, when grip arms 60a and 60b are pressed together via pressing handles 62a and 62b, the arcs of the lips 64a and 64b are not splayed open. Instead, the lips 64a and 64b are only moved relative to the body portion 36 due to movement of the grip arms, but without deforming or being splayed open.

There would be no reason to modify Klein in view of Fangrow because there would be no benefit to such a modification. In fact, attempting such a modification would make the Klein arrangement inoperable. For example, rotating the handles 62a and 62b 90° on arms 60a and 60b, respectively, to change the opening axis of the arms would actually prevent lips 64a and 64b

from fitting on the tubular device 10 of Klein. The arms 60a and 60b on one side would widen apart, and on the second side, i.e., the side where handles 62a and 62b are pressed together, the arms would be pushed together, which would prevent connector from attaching to tubular device due to the lips 64a and 64b being pushed together at the second side of the arms.

Burbank, viewed alone or in combination with Klein and Fangrow, does not remedy the disclosure deficiencies of Klein or Fangrow. The Examiner cites Burbank for disclosing “an implantable device comprising a *releasable* implantable first fluid guiding system.” *Office Action*, page 4. However, the claims have been amended and now recite “an implantable first fluid guiding system.” Thus, the basis for the Examiner’s rejection has been removed. In view of the presently pending claims, Burbank, alone or in combination with the other cited references, does not render the claims obvious because Burbank discloses a valve port and method for vascular access. The port is subcutaneously implanted and does not disclose a connector head for forming a “fastening engagement” as claimed.

Bestetti, Svensson and Hakansson each disclose port bodies and, viewed alone or in combination, do not disclose or suggest a “connector head” configured for forming a “fastening engagement” as claimed, and thus do not remedy the disclosure deficiencies of Klein and Fangrow.

In view of the claim amendments and remarks, reconsideration and withdrawal of the § 103 rejections are requested.

Dependent claims 2-7, 9-18 and 28 are patentable

Claims 2-7, 9-18 and 28 depend from independent claim 1. Accordingly, claims 2-7, 9-18 and 28 are patentable for the reasons set forth above, and further in view of their additional recitations.

New claims 35 and 36 are patentable

New claim 35 includes the recitations of previously presented claim 1, along with the recitations of originally presented claim 16. Claim 35 is patentable over Klein in view of Burbank. Klein does not disclose or suggest the connecting cannula and connector region of a first fluid guiding system exhibit the same flow cross-section. Instead, Klein discloses a needle assembly 36 for coupling to the tubular device 10 via inserting an elongate needle portion (unnumbered) of the needle assembly 36 into opening 33 of septum 30. As can be seen in Fig. 1, the elongate needle portion is sized and shaped to be accepted into opening 33, and opening 33 has a different flow cross section than the opening 28 and catheter 20 of disc-shaped supporting body 13. As a result, Klein does not disclose or suggest providing a connecting head having a “connecting cannula and at least one connector region of the first fluid guiding system, guided into the port casing, [that] exhibit the same flow cross-section, in order to avoid or at least minimize turbulence in the fluid” as provided by independent claim 35. Burbank does not disclose a connecting head, and therefore does not remedy the deficiencies of Klein.

With respect to new claim 36, claim 36 depends from claim 35, making it patentable for the reasons set forth above, and further in view of the additional recitations of claim 36.

Conclusion

This paper is being submitted on or before March 21, 2009, and an extension of the time to respond until that date is requested. The required fee should be charged to Deposit Account No. 04-1420. No additional fees should be due in connection with this paper, but the Commissioner is authorized to charge any additional fees, including extension fees or other relief which may be required, or credit any overpayment and notify us of same, to Deposit Account No. 04-1420.

The application now stands in allowable form, and reconsideration and allowance are respectfully requested.

Respectfully submitted,

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